

# Sx.A360 High Powered Loudspeaker Owner's Manual



### Important Safety Instructions





The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water. Do not expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on this apparatus.
- 6. Clean only with a dry cloth.
- 7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Only use attachments/accessories specified by the manufacturer.
- 10. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 11.To completely disconnect AC power from this apparatus, the power supply cord must be unplugged.

#### For US and CANADA only:

Do not defeat the safety purpose of the grounding-type plug. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrican for replacement of the absolete outlet.

#### Important Service Instructions

CAUTION: These servicing instructions are for use by qualified personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the Operating Instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

- 1. Security regulations as stated in the EN 60065 (VDE 0860 / IEC 65) and the CSA E65 94 have to be obeyed when servicing the appliance.
- 2. Use of a AC separator transformer is mandatory during maintenance while the appliance is opened, needs to be operated and is connected to the AC.
- 3. Switch off the power before retrofitting any extensions, changing the AC voltage or the output voltage.
- 4. The minimum distance between parts carrying AC voltage and any accessible metal piece (metal enclosure), respectively between the AC poles has to be 3 mm and needs to be minded at all times.

The minimum distance between parts carrying AC voltage and any switches or breakers that are not connected to the AC (secondary parts) has to be 6 mm and needs to be minded at all times.

- 5. Replacing special components that are marked in the circuit diagram using the security symbol (Note) is only permissible when using original parts.
- 6. Altering the circuitry without prior consent or advice is not legitimate.
- 7. Any work security regulations that are applicable at the location where the appliance is being serviced have to be strictly obeyed. This applies also to any regulations about the work place itself.
- 8. All instructions concerning the handling of MOS circuits have to be observed.

Note: / SAFETY COMPONENT (HAS TO BE REPLACED WITH ORIGINAL PART ONLY)



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#### SxA360 Owner's Manual

Thank you for choosing Electro-Voice® SxA active powered loudspeaker systems. These systems are the culmination of EV's 75 years of experience in transducer design and over 50 years of experience in designing and building electronics. Please take time to consult this manual so that you can understand all the features built into your EV systems and full utilize all their performance capabilities.

## SxA360

### Safety First

When setting up, installing and using Electro-Voice® SxA speaker systems, there are a number of precautions that you should follow:

- When Electro-Voice® SxA speakers are used for portable applications in which they will be stacked directly on the floor or mounted on a tripod stand, make sure that the floor or stage is solid and secure.
- Electro-Voice® SxA speaker systems include 1 3/8-inch stand mounts to allow mounting on tripod stands.

#### Make sure to:

- Check the specifications of the speaker stand to be certain it is capable of supporting the weight of the speaker.
- Check that the speaker stand is placed on a flat, stable surface and be sure to fully extend the legs of the stand. Do not try to make the stand "taller" and compromise its structural integrity.
- Route cables and position the stand so that performers, production crew and audience members will not trip over the stand or cables and pull the speaker system over. Secure cables with wire ties or tape whenever possible.
- Do not attempt to suspend more than one speaker on a stand designed for a single speaker.
- Unless you are confident that you can safely handle lifting the weight of the speaker onto the stand, ask another person to help you place it.
- After the system is in operation for a few minutes, the heat sink will become warm to the touch and can become quite hot after extended high-level operation. Avoid touching the heat sink fins to prevent burns. When installing the system, use care to ensure that there is at least two inches of space behind the heatsink to allow free circulation of air.
- If you intended to hang or fly the SxA two-way systems, please do so safely with the correct hardware and accessories.



**WARNING:** Suspending any object is potentially dangerous and should only be attempted by individuals who have a thorough knowledge of the techniques and regulations of rigging objects overhead. Electro-Voice® strongly recommends that SxA

speakers be suspended taking into account all current national, federal, state and local regulations. It is the responsibility of the installer to ensure that SxA speakers are safely installed in accordance with all such regulations. If SxA speakers are suspended, Electro-Voice® strongly recommends that the system be inspected at least once a year. If any sign of weakness or damage is detected, remedial action should be taken immediately. Please consult our manual entitled Suspending System 200 Loudspeakers, and the SK1 data sheet, which details the various hardware kits that are available to safely suspend SxA speakers and how each kit should be used. There are also data sheets for each EV hanging hardware part that should also be consulted prior to suspending speakers.



• Electro-Voice® does not recommend use of SxA speakers outdoors or in high moisture environments. Avoid exposing SxA speakers to direct moisture and or high humidity that can cause corrosion of electrical contacts and problems with loudspeaker cones and surrounds.



• Electro-Voice® SxA loudspeakers are easily capable of generating sound pressure levels sufficient to cause permanent hearing damage to anyone within normal coverage distance. Caution should be taken to avoid prolonged exposure to sound pressure levels exceeding 90 dB.



#### **Description**

The Electro-Voice® SxA360 high powered loudspeaker is a fully integrated audio system with carefully matched electronics and transducers. This product makes it easy to setup a high-quality sound system quickly with a minimum of cables and external electronics. It retains typical EV ruggedness, reliability and impeccable sound quality.

#### System Features - SxA360

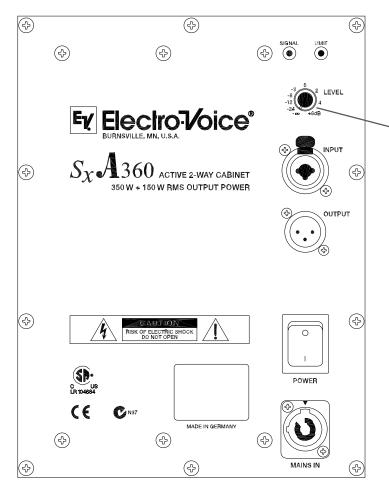
- Two built-in power amplifiers, one for low frequencies and one for high frequencies. The
  amplifiers also contain electronic crossover circuitry and CD horn compensation optimized for
  the speaker components a well as a limiter circuit that prevents either amplifier from clipping
  while preserving the sonic quality.
- The low-frequency power amplifier delivers 350 watts continuous average power.
- The high-frequency power amplifier delivers 150 watts continuous average power.
- The line input utilizes Neutrik "combo" connectors, which will accept either ¼-inch or 3-pin XLR-type connectors.
- The separate line output is 3-pin XLR-type balanced, low-impedance output that can be used with long cable runs.
- The SxA360 two-way system is perfect for use as powered floor monitors.

#### System Setup

To get your SxA system into operation as quickly as possible, please observe the following steps and precautions.

- Plug the 3-terminal Powercon ac cable into a grounded line receptacle. Extension cords can be used to lengthen the ac cable as necessary but make sure that they are 3-conductor 14 gauge or greater, and that are properly grounded to avoid electrical hazards and extraneous noise.
- Be sure that the SxA system is plugged into an ac power source that is capable of supplying the correct voltage. If the line voltage drops too much, the built-in amplifiers won't be able to develop their rated power and sound quality will suffer. Under high signal conditions, the SxA amplifier section can pull 3 4 amps of current (120 volt models) (2 amps at 240 volts). That means that no more than 4-SxA systems should be plugged into a single 15 amp electrical service. Be cautious of what else is plugged into the same electrical service line to avoid electrical problems and poor performance.
- BEFORE TURNING THE POWER ON, MAKE SURE THAT THE LEVEL CONTROLS ARE DOWN TO AVOID TRANSIENTS OR UNEXPECTED LOUD SOUND. Turn on the power switch and ensure that the system is receiving power by monitoring the status LED. If the system is receiving signal, the LED will illuminate green.
- The SxA360 loudspeaker has narrower coverage than other compact loudspeaker systems. Its narrower coverage will help you avoid room acoustics problems by delivering the sound where the speaker is aimed. You will find that precisely aiming the speakers at the audience area away from walls will give you better sound quality.

## Sx.A360



Level adjustment knob shown in place. Unit is shipped preset at 0 dB without knob installed (knob is shipped separately with your SxA360). If knob is not used, please remember where you store it. Customer can adjust level by removing cover, pressing knob in place, and rotating to desired level.

Figure 1:
Rear Panel SxA360

### Setup Diagrams for SxA360

• Plug a line input into either the ¼-inch or the 3-pin XLR-type input connector. Examples of line input sources are mixer outputs, CD/DVD players, cassette decks, VCRs, electronic keyboards, computer sound cards, etc. The ¼- inch input is in the center of the XLR connector and can accept unbalanced or balanced lines (TRS ¼-inch). The line input level required to drive the unit to full power is from – 12 dBu to 0 dBu. The system's level control regulates the overall output level of the system.



#### Using SxA360's as Floor Monitors

- The SxA360 is perfect for use as a powered floor monitor.
- The F200 adapters are necessary to convert the SxA360 into a monitor and are shipped with the speaker. To install the adapters, simply insert them into the speaker (See Figure 2 below). The F200 adapters can be easily removed by pulling in the opposite direction.
- The F200 Monitor Foot kit contains two plastic feet.
- The F200 is used with any 12-inch Sx or SxA speaker enclosures.
- Insert the feet firmly into the holes in the rear cabinet (See Figure 2).
- Remove the F200 monitor feet by pulling in the opposite direction.

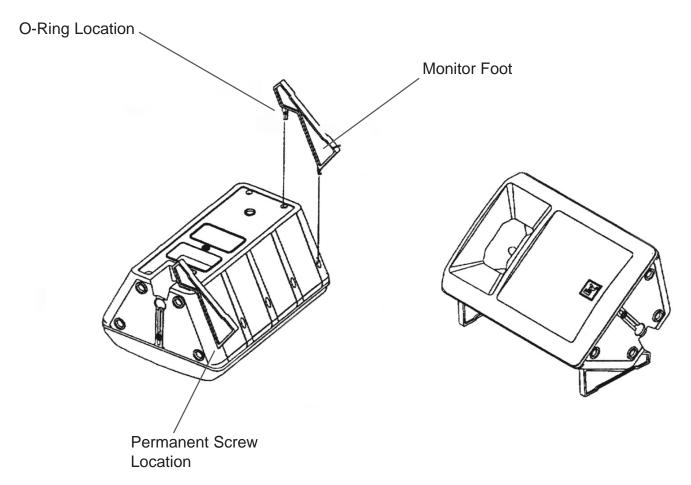


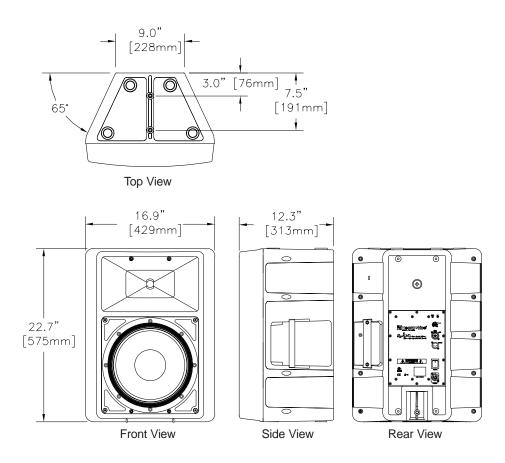
Figure 2:
Installing the F200 Monitor Foot on the SxA360 Speaker

CAUTION: The F200 monitor feet protrude from the enclosure. Care should be taken when moving the enclosure, since damage to the feet or enclosure might occur if the system is dropped or slid across a rough surface. It is recommended that the feet be removed for transport.

# Specifications

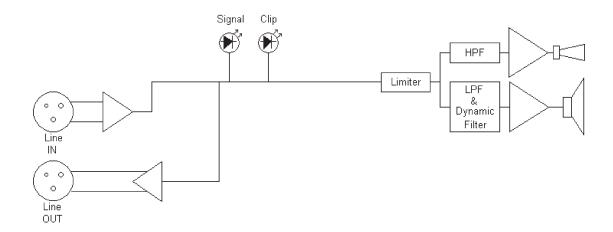
Freq. Response (-10 dB):	60 Hz - 18 kHz
Max SPL:	126 dB
Horizontal Coverage:	65°
Vertical Coverage:	65°
LF Amplifier Power:	350W RMS
HF Amplifier Power:	150W RMS
Max SPL (Calculated):	129 dB
Line Input Sensitivity:	-12 dBu to 0 dBu for full output
LF Transducer:	12" (300mm) DL12BFH Woofer
HF Transducer:	1" (25mm) exit DH2T Comp. Driver
Connectors: Line Inputs: Balanced Output:	XLR and ¼" phone Combination XLR
Power Requirement:	110-130 VAC, 50-60Hz, or 220-240 VAC, 50-60Hz 600 Watts
Enclosure Material:	Copolymer
Grille:	Powder Coated Steel
Dim (H x W x D):	23.1" x 16.9" x 12.3 ("586 x 429 x 312mm)
Net Weight (each):	36 lbs (16.6 kg)
Shipping Weight:	40 lbs (18.4 kg)

## **Dimensions**





# **Block Diagram**



# *SxA*360

## Notes





#### U.S.A. and Canada:

For customer orders, contact the Customer Service department at:

800/392-3497 Fax: 800/955-6831

For warranty repair or service information, contact the Service Repair Department at:

800/685-2606

For technical assistance, contact Technical Support at:

866/78 AUDIO

Specifications subject to change without notice.

#### All Locations:

952-884-4051 Fax: 952-884-0043

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